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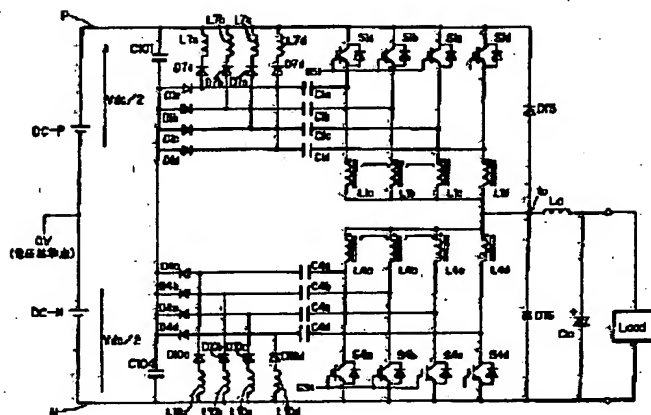
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TITLE : POWER CONVERSION DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To make good use of the inductor of a commutating circuit for noise reduction to improve current balance between parallel elements.

SOLUTION: A commutating circuit for noise reduction having inductors L1a-L1d, L4a-L4d comprising a capacitor C, an inductor L and a diode D, respectively, and series-connected with a plurality of parallel switching elements S1a-S1b, S4a-S4d constituting the switches of upper and lower arms is connected with the elements. The inductors L1a-L1d and the inductors L4a-L4d are magnetically coupled using a core, respectively, to form an interphase reactor. The elements of the upper and lower arms are alternately turned on with a short circuit preventing period in between. Due to the magnetic coupling of the interphase reactor, a current through the parallel connected elements acts so that, if currents vary, all the currents become equal. Therefore, the current balance between the elements is improved. Commutation, reflux or the like occurs in the commutating circuit when the elements are turned on/off, and it is passed through any diode without exception. The diodes have non-linear characteristics to the magnitude of currents, and thus noise is reduced.

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